reporting each fault detected by the self-diagnostic test to the central processor if the detected fault does not preclude accurate reporting of the fault.

14. (Amended) The method of claim 13 wherein the self-diagnostic label determines whether a failure disables the electronic price label from accurately reporting the failure and wherein the label ceases transmitting signals to the central processor in the event that a failure occurs which does not completely disable the electronic price label from transmitting but which disables the electronic price label from accurately reporting the failure.

Remarks

The present amendment responds to the Official Action dated June 8, 2001. The Official Action objected to the specification. The Official Action rejected claim 14 under 35 U.S.C. 112. The Official Action rejected claims 1-14 under 35 U.S.C. 102(b) as anticipated by Goodwin, III, U.S. Patent No. 5,663,963 ("Goodwin").

Claims 5, 6, 11 and 14 has been amended to be more clear and distinct. Claims 1-14 are presently pending. Attached hereto is a marked-up version of the changes made to the claims by the present amendment. The attached pages are captioned "**Version With Markings To Show Changes Made.**"

The Present Invention

An electronic price label according to the present invention performs periodic self-diagnosis for faults and reports detected faults through a visual display or audible tone, or alternatively to a central reporting system. During normal operation, the price label periodically issues a "normal operation" signal. If the central reporting system fails to detect the "normal operation" signal during a predetermined time interval, the label is presumed to be faulty and an investigation is performed. The price label includes a processor which controls normal operation

for the label, and which also runs a diagnostic program at periodic intervals. The processor, under control of the diagnostic program, exercises each component of the electronic price label and receives responses from the components. The processor then compares the responses received against fault signatures and reports as a failure any response matching a fault signature. The electronic price label performs self diagnosis, relieving the central reporting system from having to make status inquiries to the electronic price label and check the reported status against the expected status in order to determine whether or not the label is faulty.

The Section 112 Rejection

The Official Action rejected claim 14 under 35 U.S.C. 112 on the ground that it essentially recites that when the EPL cannot transmit it does not transmit. In light of the present amendment to claim 14, this ground of rejection is respectfully traversed. Certain failure conditions may occur which prevent proper operation of an electronic price label and which prevent the label from accurately reporting a failure, but which do not completely prevent the label from transmitting. Claim 14 has been amended to claim that the label ceases transmitting signals to the central processor in the event that a failure occurs which does not completely disable the electronic price label from transmitting but which disables the electronic price label from accurately reporting the failure. In light of this amendment, the Section 112 rejection should be withdrawn.

The Art Rejections

The Official Action rejected claims 1-14 under 35 U.S.C. 102(b) as anticipated by Goodwin on the ground that the electronic price label inherently has a memory for storing the price and a label for displaying the price information, as well as a processor. This ground of rejection is respectfully traversed.

Claim 1 claims an electronic price label comprising a processor adapted to control operation of the memory, the interface and the display, the processor being operative to perform diagnostic tests on one or more of the memory, the interface and the display and direct the issuance of an alert reporting a failure of one or more of the diagnostic tests. Goodwin does not teach a processor within an electronic price label which performs diagnostic tests on the components of the label as presently claimed. Goodwin teaches that an electronic price label transmits a return signal to a communication base station in response to a status message from the communication base station. The return signal includes status information and the communication base station passes the status information to a central computer, which compares the status information against expected status information to determine whether a fault has occurred. The present invention, as claimed by claim 1, performs diagnosis within the electronic price label, detecting a fault without any need to exchange information with the communication base station. The workload on the central computer, the communication base stations and the other central elements of the electronic price label system is reduced because the price label can diagnose and report a failure without receiving a status request at all and can report a failure without a need to send status information which must then be evaluated in order to determine firstly, whether it represents a failure and secondly, the nature of the failure. Moreover, in case of a less than total failure, the electronic price label can issue a local alert without any need to communicate with the communication base station. For example, the alert may take the form of an audible beep to draw the attention of a repair person or other appropriate store personnel, and a display message identifying the nature of the failure, if the failure is of a nature which permits the display to continue operating. Claim 1 therefore defines over the cited art and this ground of rejection should be withdrawn.

Claim 6 claims an electronic price label system including a plurality of electronic price labels, each of the labels being operative to perform an internal self-diagnostic test and provide an alert reporting failure of the self-diagnostic test. As noted above with respect to claim 1, Goodwin does not teach electronic price labels each being operative to perform an internal self-diagnostic test as presently claimed. Claim 6 therefore defines over the cited art and should be withdrawn.

Claim 11 claims a method of self-diagnosis of failures in an electronic price display system, comprising periodically performing a self-diagnostic test on each of a plurality of electronic price labels. As noted above with respect to claim 1, Goodwin does not teach performing a self-diagnostic on each of a plurality of electronic price labels as presently claimed. Claim 11 therefore defines over the cited art and this ground of rejection should be withdrawn.

Conclusion

All of the presently pending claims, as amended, appearing to define over the applied references, withdrawal of the present rejection and prompt allowance are requested.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification

Please replace the paragraph beginning at page 3, line 16, with the following rewritten paragraph:

--Fig. 1 illustrates a retail price display system 100 including a plurality of self-diagnosing electronic price labels, shown here in groups 102A-102D, according to the present invention. The system 100 includes a central processor 104 having access to a storage system 106, which is preferably a fixed disk drive. The storage system 106 maintains one or more databases such as a electronic price label data file 108, a system configuration file 110 and a fault data file 112. The electronic price label data file 108, includes product information, identification information, product price verifier information, and status information for each of the electronic price labels in groups 102A through 102D. The central processor 104 executes electronic price label control software 116 and price display system diagnostic software 118. The diagnostic software ~~120~~ 118 monitors the price display system 100 for failures and manages reporting of failures. The control software 116 includes a data scheduler 122 and a communication base station manager 124.--

In the claims

Please amend claims 6, 11 and 14 as follows:

6. (Amended) An electronic price label system for use in a retail establishment comprising:

a central processor for maintaining price and other information relating to a plurality of retail items; and

a plurality of labels operative to communicate with the central processor, the labels being operative to display information based on information received from the central processor, each of the labels being operative to perform an internal self-diagnostic test and provide an alert reporting failure of the self-diagnostic test.

11. (Amended) A method of ~~self-diagnosing~~ self-diagnosis of failures in an electronic price display system, comprising the steps of:

establishing communication between a central processor and a plurality of electronic price labels;

periodically performing a self-diagnostic test on each of the electronic price labels; and

reporting each ~~failure status of a self-diagnostic program~~ fault detected by the self-diagnostic test to the central processor if the detected fault does not preclude accurate reporting of the fault.

14. (Amended) The method of claim 13 wherein the self-diagnostic label determines whether a failure disables the electronic price label from accurately reporting the failure and wherein the label ceases transmitting signals to the central processor in the event that a failure occurs which does not completely disable the electronic price label from transmitting but which disables the electronic price label from accurately reporting the failure.